

SN 09/628,805  
Page 18 of 29

### REMARKS

This response is intended as a full and complete response to the non-final Office Action mailed June 18, 2004. In the Office Action, the Examiner notes that claims 3-10, 13-23, 32-44, 46-53, 56-58, 60-65, 68, 70, 72, 73, 76, 79-82 and 84-86 are pending and rejected. By this response, Applicant has amended claims 1, 4, 7-8, 10-11, 13, 15, 18, 25, 27, 34, 36, 43, 51, 53-54, 56, 59, 64, 68-69, and 73; canceled claims 9, 48-50, and 52; and claims 2-3, 5-6, 12, 14, 16-17, 19-24, 26, 28-33, 35, 37-42, 44-47, 55, 57-58, 60-63, 65-67, 70-72, and 74-78 continue as unamended.

In view of both the amendments presented above and the following discussion, the Applicant submits that none of the claims now pending in the application are anticipated or obvious under the respective provisions of 35 U.S.C. §102 and 103. Further, the Applicant has addressed the Examiner's Double Patenting Rejections and submits that none of the claims are double patented under the statutory type of double patenting rejection, and that a terminal disclaimer will be filed for those claims being rejected for the judicially created doctrine of double patenting. Thus, the Applicant believes that all of these claims are now in allowable form.

It is to be understood that the Applicant, by amending the claims, does not acquiesce to the Examiner's characterizations of the art of record or to the Applicant's subject matter recited in the pending claims. Further, the Applicant is not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendments.

### REJECTIONS

#### Double Patenting

##### I. 35 U.S.C §101

The Examiner alleges that claim 52 of this application claims the same invention as that of claim 52 of copending application Serial No. 09/597,893. As such, the Examiner has provisionally rejected claim 52 under 35 U.S.C. §101.

The Applicant has canceled claim 52. Therefore, the rejection is now deemed moot.

SN 09/628,805  
Page 19 of 29

**Obviousness Double Patenting**

The Examiner has rejected claims 1, 7, 34, 43, 48, 51 and 54 provisionally under the judicially created doctrine of obviousness-type double patenting as being unpatentable over, respectively, claims 1, 6, 32, 42, 47, 51 and 54 of copending Application No. 09/597,893.

In response, the Applicant will file a Terminal Disclaimer under 37 C.F.R. 1.130(b) upon indication of allowable subject matter. As such, the Applicant respectfully requests that the obviousness-type double patenting rejection be held in abeyance.

**II. 35 U.S.C. §102**

**Claims 1-10, 12-21, 25-32, 34-45, 51-56, 58-64, 66 and 68-78**

The Examiner has rejected claims 1-10, 12-21, 25-32, 34-45, 51-56, 58-64, 66 and 68-78 under 35 U.S.C. §102 as being anticipated by U.S. 6,177,391 B1 to Alexander (hereinafter "Alexander"). The Applicant respectfully traverses the rejection.

**A. Claim 9**

The Applicant has canceled claim 9. Therefore, the rejection is now deemed moot.

**B. Claims 1-8, 10, 12-21, 25-32, 34-45, 51-56, 58-64, 66 and 68-78**

The Applicant's independent claim 1 (and similarly independent claims 7, 25, 34, 43, 51-54, 59, and 68-69), as amended, recites:

"A method for targeting virtual advertisements at a user's terminal, comprising:

assigning at least one virtual advertisement spot to a video program;

assigning one or more virtual objects to the at least one virtual advertisement spot;

generating a retrieval plan; and

providing the retrieval plan and video program to the terminal, wherein the retrieval plan directs the terminal to select one of the one or more virtual objects for placement at said at least one virtual advertisement spot in said video program." (emphasis added).

SN 09/628,805  
Page 20 of 29

Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added). The Alexander reference fails to disclose each and every element of the claimed invention, as arranged in the claim.

The Alexander reference discloses

In FIG. 1 of the drawing, one embodiment of the EPG with Ad Window and Advertising Messages is shown. In FIG. 1, a television screen display 10 is shown. Display 10 could be generated by a conventional television receiver with interlaced scan lines, by a VCR, by a PC monitor with progressive scan lines, or by another other type of video display device. In the upper left hand corner of the screen is a PIP window 12. Below window 12 are Panel Ad Windows 14, and 16 ("Ad Windows"). Windows 12, 14, and 16 each typically occupy about  $\frac{1}{2}$  of the total screen area. The remainder of the screen area is typically occupied (moving from top to bottom of the screen) by an action key bar 18, a navigation bar 20, a grid guide 22 ("Grid Guide"), and an information box 24 (the "detailed information area). In the embodiment pictured in FIG. 1, the position of the windows, and other user interface features, including the action key bar, navigation bar and Grid Guide, are fixed. In another embodiment of this invention, as is described further below, the position and size of the windows and other user interface features are customizable by the viewer. (see Alexander, column 3, lines 1-20):

In one embodiment of this invention, a data base of advertising messages and virtual channel ads is stored in RAM at the viewer terminal or is accessible at a web site if the viewer terminal has an Internet connection. In either case, the advertising items in the data base are labeled with coded categories that correspond to coded category labels assigned to the telecast television programs. (Preferably, these are the same categories that are used to sort the programs in the on screen category or theme guide.) The category labels of the television programs could be stored in RAM as part of the EPG data base and retrieved from the applicable Show Information Package ("SIP") based on the information from the real time clock and the tuner setting. This information identifies a time and channel that points to the applicable SIP. After the category label of the last program the viewer was watching in the television mode is retrieved from the EPG data base, this label is matched to the corresponding label in the data base of advertising messages and virtual channel ads stored in RAM. In FIG. 1 of the drawing, the advertising items to which the labels are attached are displayed in ad windows 14 and

SN 09/628,805  
Page 21 of 29

16 and the virtual channel ad displayed on tile 52 as described above.  
(see Alexander, column 33, lines 44-65).

The Applicant's invention is completely different than the Alexander reference. In particular, the Applicant's invention provides a system and method for delivering targeted virtual objects to reception sites. A virtual object is a realistic, synthetic replica of an actual object. The virtual object is viewable within video programming and may be combined with original video and audio to supplement or replace portions of the original video and audio content. Virtual objects may be overlaid on video, partially or entirely obscuring the underlying video. An overlaid object may be static in nature, such as a graphical icon or the like, or alternatively may be dynamic, such as a video clip, animation, or scrolling alphanumeric characters, for example. Overlaid objects may be limited spatially to a fixed portion of the video screen, limited temporally to a given time for display, limited by a combination of both location and time, or tied to a spatially changing portion of the screen that is moving with time. Alternatively, virtual objects may be added to and embedded within the actual video. Multiple virtual objects may be embedded in the video in a multi-layer fashion. The virtual object is indistinguishable from the other video content sharing the field of view. (see Applicant's specification, page 2, lines 6-18).

The Applicant's invention assigns at least one virtual advertisement spot to a video program, assigns one or more virtual objects to the at least one virtual advertisement spot, generates a retrieval plan, and provides the retrieval plan and video program to the terminal, where the retrieval plan directs the terminal to select one or more of the virtual objects for placement in the virtual advertisement spot in the video program. By contrast, the Alexander reference merely discloses an EPG formed by graphics, as opposed to video, which includes a picture-in-picture window for displaying content, as well as advertisement panels for displaying advertisements. Neither the EPG nor the advertisement panels of the EPG are a video program as defined by the Applicant's invention. Rather the EPG and associated advertisement panels are graphics that are displayed by the terminal. Since the Alexander reference fails to teach "assigning at least one virtual advertisement spot to a video program" and "providing the retrieval plan and video program to the terminal, wherein the retrieval

309538-1

SN 09/628,805  
Page 22 of 29

plan directs the terminal to select one of the one or more virtual objects for placement at said at least one virtual advertisement spot in said video program", the Alexander reference fails to teach each and every element of the claimed invention, as arranged in the claim.

As such, the Applicant submits that independent claims 1, 7, 25, 34, 43, 51, 52, 53, 54, 59, 68 and 69 are not anticipated and fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder. Furthermore, claims 2-6, 8-10, 12-21, 26-32, 35-42, 44-45, 55-56, 58, 60-64, 66 and 70-78 depend, either directly or indirectly, from independent claims 1, 7, 25, 34, 43, 51, 52, 53, 54, 59, 68 and 69 and recite additional features thereof. As such and at least for the same reasons as discussed above, the Applicant submits that these dependent claims are also not anticipated and fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder. Therefore, the Applicant respectfully requests that the Examiner's rejection be withdrawn.

### III. 35 U.S.C. §103

#### A. Claims 22-24, 46, 47, 57, 65 and 67

The Examiner has rejected claims 22-24, 46, 47, 57, 65 and 67 as being obvious and unpatentable under the provisions of 35 U.S.C. §103(a). In particular, the Examiner has rejected claims 22-24, 46, 47, 57, 65 and 67 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,177,931 to Alexander in view of the Examiner's Official Notice. Applicant respectfully traverses the rejection.

Claims 22-24, 46, 47, 57, 65 and 67 respectively depend from independent claims 7, 43, 56, and 59 and recite additional features thereof. In particular, claim 22 (and similarly dependent claims 23-24, 46, 47, 57, 65 and 67) recites in part:

"A method of targeting virtual objects, comprising:  
    providing a video program containing one or more virtual object locations;  
    providing virtual objects for one or more of the virtual object locations;  
    providing alternate virtual objects for one or more of the virtual object locations; and

SN 09/628,805  
Page 23 of 29

generating a retrieval plan at one or more viewer's terminals, wherein the retrieval plan designates which of the one or more virtual object locations displays an alternate virtual object in said video program." (emphasis added).

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). The combination of Alexander and the Examiner's Official Notice fails to teach or suggest the Applicant's invention as a whole.

As discussed above, the Alexander reference discloses

An electronic program guide having advertisement panels formed by a graphics layer that is sent to the terminals. Further, the EPG and the Profile Program use Viewer Profile information to tailor the presentation and scheduling of advertisements to viewer and to customize the presentation of the EPG for the user. One example is customizing an overlay message to an advertisement on a local geographic basis. In one embodiment, the customized messages can be preloaded by zip code into the memories of particular viewers' EPG's. The preloaded messages can be transmitted by a head end during off hours and stored in the viewer's terminal for use when the advertisement runs, e.g., during a television program or in a video clip in the Ad Window. (see Alexander, column 32, lines 23-27 and lines 35-51).

Furthermore, the Examiner's Official Notice is limited to teaching that the use of a PC as a terminal is well-known in the art. Even if the Alexander reference and the Examiner's Official Notice could somehow be operably combined, the combination would disclose customizing an overlay message to an advertisement in an EPG and sending the customized messages from a head end to the viewer's terminal for use when the advertisement runs. Nowhere in the combined references is there any teaching or suggestion of "providing the video program containing one or more virtual object locations" and "generating a retrieval plan at one or more viewer's terminals, wherein the retrieval plan designates which of the one or more virtual object locations

SN 09/628,805  
Page 24 of 29

displays an alternate virtual object in said video program." Therefore, the combined references fail to teach or suggest the Applicant's invention as a whole.

As such, the Applicant submits that independent claims 7, 43, 54 and 59 and dependent claims 22-24, 46, 47, 57, 65 and 67 which depend directly or indirectly from independent claims 7, 43, 54 and 59 are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, the Applicant respectfully requests that the Examiner's rejection be withdrawn.

**B. Claims 33 and 63**

The Examiner has rejected claims 33 and 63 under 35 U.S.C. §103(a) as being obvious and therefore unpatentable over Alexander in view of U.S. Patent 6,741,834 to Godwin (hereinafter "Godwin"). The Applicant respectfully traverses the rejection.

Claims 33 and 63 respectively depend from independent claims 25 and 59 and recite additional features thereof. In particular, claim 33 (and similarly dependent claim 63) recites in part:

"A method of targeting virtual objects to terminals, comprising:  
creating a package of targeted virtual objects;  
providing the package to one or more of the terminals;  
generating a retrieval plan;  
storing the retrieval plan at one or more of the terminals; and  
providing a video program to one or more of the terminals, the  
video program including at least one virtual object location, wherein the  
retrieval plan designates virtual objects to be displayed during a display of  
the video program." (emphasis added).

As discussed above, the Alexander reference discloses

An electronic program guide having advertisement panels formed by a graphics layer that is sent to the terminals. Further, the EPG and the Profile Program use Viewer Profile information to tailor the presentation and scheduling of advertisements to viewer and to customize the presentation of the EPG for the user. One example is customizing an overlay message to an advertisement on a local geographic basis. In one embodiment, the customized messages can be preloaded by zip code into the memories of particular viewers' EPG's. The preloaded messages can be transmitted by a head end during off hours and stored in the viewer's terminal for use when the advertisement runs, e.g., during a television program or in a video clip in the Ad Window. (see Alexander, column 32, lines 23-27 and lines 35-51).

SN 09/628,805  
Page 25 of 29

Furthermore, the Godwin reference does not bridge the substantial gap between the Alexander reference and the Applicant's invention. Specifically, the Godwin reference discloses

The subscriber receiver 110 includes a global positioning system (GPS) receiver 524 communicatively coupled to a suitable antenna 526. The GPS receiver 524 can provide information regarding the position of the subscriber receiver 110 (for example, in the form of a latitude and longitude). The location module 518 provides the local broadcast region information to a controller module 530 and to an EPG data processing module 532. The controller module 530 uses the information provided by the location module 518 and the local market ID to determine which of the satellite's regional media programs should be presented to the user. Further, the EPG data processing module 532 uses the information provided by the location module 518 to determine which programs to present in an integrated EPG (presenting only those which are either national media programs or satellite or terrestrial regional media programs broadcast within the local broadcast region). (see Godwin, column 7, lines 30-51, FIG. 8B).

Even if the two references could somehow be operably combined, the combination would merely provide a graphical electronic program guide having advertisement panels to a terminal having a GPS receiver, where the terminal is capable of determining which programs to present in an integrated EPG. Nowhere in the combined references is there any teaching or suggestion of "providing a video program to one or more of the terminals, the video program including at least one virtual object location, wherein the retrieval plan designates virtual objects to be displayed during a display of the video program." Therefore, the combined references fail to teach or suggest the Applicant's invention as a whole.

As such, the Applicant submits that independent claims 25 and 59 and dependent claims 33 and 63, which depend from independent claims 25 and 59, are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, the Applicant respectfully requests that the Examiner's rejection be withdrawn.

SN 09/628,805  
Page 26 of 29

C. Claims 11 and 48-50

The Examiner has rejected claims 11 and 48-50 under 35 U.S.C. §103(a) as being obvious and therefore unpatentable over Alexander in view of U.S. Patent 6,493,872 to Rangan (hereinafter "Rangan"). The Applicant respectfully traverses the rejection.

1. Claims 48-50

The Applicant has canceled claims 48-50. Therefore, the rejection is now deemed moot.

2. Claim 11

Claim 11 depends from independent claim 7 and recites additional features thereof. In particular, dependent claim 11 recites in part:

"A method of targeting virtual objects, comprising:  
providing a video program containing one or more virtual object locations;  
providing virtual objects for one or more of the virtual object locations;  
providing alternate virtual objects for one or more of the virtual object locations; and  
generating a retrieval plan at one or more viewer's terminals,  
wherein the retrieval plan at the terminal designates which of the one or  
more virtual object locations displays an alternate virtual object in said  
video program." (emphasis added).

As discussed above, the Alexander reference discloses

An electronic program guide having advertisement panels formed by a graphics layer that is sent to the terminals. Further, the EPG and the Profile Program use Viewer Profile information to tailor the presentation and scheduling of advertisements to viewer and to customize the presentation of the EPG for the user. One example is customizing an overlay message to an advertisement on a local geographic basis. In one embodiment, the customized messages can be preloaded by zip code into the memories of particular viewers' EPG's. The preloaded messages can be transmitted by a head end during off hours and stored in the viewer's terminal for use when the advertisement runs, e.g., during a television program or in a video clip in the Ad Window. (see Alexander, column 32, lines 23-27 and lines 35-51).

SN 09/628,805  
Page 27 of 29

Furthermore, the Rangan reference does not bridge the substantial gap between the Alexander reference and the Applicant's invention. Specifically, the Rangan reference discloses

The overall purpose of the authorizing station is addition of innovative material to the video data stream, such as text overlay, graphic icons and logos for advertisement, some of which may be associated with identity and address data to allow a viewer at a computerized end station to access advertisements and other data which may be associated with individual entities in the video presentation. Advertisements may, for example, be associated with a tracked object. Also the text annotations could either be set to track along with an object, or appear in a fixed position anywhere on the screen, as they are typical in broadcasts today. (see Rangan, column 6, lines 6-16).

Furthermore, the Rangan reference discloses

The authoring system 51 comprises multiple dedicated authoring stations equipped with software capable of tracking images within the video stream and adding annotations including interactive icons, text, animated graphics and sounds. (see Rangan, column 13, lines 19-24).

In other words, the Rangan reference merely discloses that advertising information, such as text, icons, and animated graphics associated with a tracked object in the video may be inserted into the video at an authoring station, which is upstream from the users' terminals.

Even if the two references could somehow be operably combined, the combination would provide a library of advertisements stored at the viewer's terminal where the EPG selects advertisements for display according to pre-established selection criteria, and an authoring station for tracking and inserting advertisements in a video stream that is upstream from the user's terminal. Nowhere in the combined references is there any teaching or suggestion of "providing a video program containing one or more virtual object locations" and "generating a retrieval plan at one or more viewer's terminals, wherein a retrieval plan at the terminal designates which of the one or more virtual object locations displays an alternate virtual object in said video program." Therefore, the combined references fail to teach or suggest the Applicant's invention as a whole.

SN 09/628,805  
Page 28 of 29

As such, the Applicant submits that independent claim 7 and dependent claim 11, which depends from independent claim 7, are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, the Applicant respectfully requests that the Examiner's rejection be withdrawn.

309538-1

PAGE 31/32 \* RCVD AT 12/9/2004 9:07:45 AM [Eastern Standard Time] \* SVR:USPTO-EFXRF-1/1 \* DNIS:8729306 \* CSID:732 530 9808 \* DURATION (mm:ss):09:10

SN 09/628,805  
Page 29 of 29

**CONCLUSION**

Thus, the Applicant submits that none of the claims presently in the application are anticipated or obvious under the respective provisions of 35 U.S.C. §102 and §103. The Applicant further submits that Applicant has addressed the Examiner's double patenting rejections and they should be withdrawn. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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